Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claims 1-119 (cancelled)

120. (previously presented) A process for the isolation and purification of nucleic acids from cells comprising, in two separation/purification stages, the steps of:

i) in a first separation/purification stage,

a) digesting the cells containing nucleic acids, removing cell debris and thereafter subjecting the nucleic acids to anion exchange against an anion exchanger in a first buffer solution, which has a low ionic strength,

b) desorbing the nucleic acids from the anion exchanger by applying a second buffer solution, which has a higher ionic strength than the first buffer solution, effecting purified nucleic acids in the second buffer solution; and

ii) in a second separation/purification stage,

c) adsorbing the separation/purified nucleic acids in the second buffer solution onto the surface of a mineral support material, optionally in the presence of lower alcohols, poly(ethylene glycol), or a mixture thereof, and

d) desorbing the nucleic acids from the mineral support material by applying an eluant, wherein the eluant is water or a third buffer solution, which has an ionic strength lower than the second buffer solution, effecting twice-purified nucleic acids.

121. (previously presented) The process according to claim 101, wherein the stages i) and ii) are carried out in immediate succession.

122. (previously presented) The process according to claim 120, further comprising the step of, prior to the digesting step, subjecting the cells to centrifugation or filtration in order to remove undissolved components.

123. (previously presented) The process according to claim 120 further comprising, between the steps a) and b), one or more washing steps by applying a fourth buffer solution, which has a low ionic strength, optionally increasing ionic strength per washing step.

124. (previously presented) The process according to claim 120 further comprising, between the steps c) and d), one or more washing steps by applying a fifth buffer solution, which has an ionic strength higher than the first buffer solution.

125. (previously presented) The process according to claim 120 further comprising, between the steps c) and d), at least one washing step by applying an aqueous alcoholic solution.

126. (previously presented) The process according to claim 120 further comprising, between the steps c) and d), a washing step by applying a solution having an ionic strength corresponding to a 1.5 molar sodium perchlorate solution and a pH of 5.

127. (previously presented) The process according to claim 120, wherein the isolated and purified nucleic acid has from 10 nucleotides to 200,000 nucleotides.

128. (previously presented) The process according to claim 120, wherein the mineral support material is silica gel, glass, zeolite, aluminum oxide, titanium dioxide, zirconium dioxide, kaolin, or diatomacae.

129. (previously presented) The process according to claim 120, wherein the anion exchanger has a porous or non-porous matrix having a particle size of from 1 to 250 μm.

130 (previously presented) The process according to claim 120, wherein the anion exchanger has a porous or non-porous matrix having a particle size of from 10 to 30 μm.

131. (previously presented) The process according to claim 120, wherein the mineral support is silica gel, in suspension, having a particle size of from 1 to 250 μm.

132. (previously presented) The process according to claim 120, wherein the mineral support is silica gel, in suspension, having a particle size of from 1 to 5 μm.

133. (previously presented) The process according to claim 120, wherein the anion exchanger has a particle size of from 1 to 250 μm and a pore diameter of from 1 to 2,500 nm.

134. (previously presented) The process according to claim 120, wherein the anion exchanger has a particle size of from 10 to 100 μm and a pore diameter of from 1 to 2,500 nm.

135. (previously presented) The process according to claim 120, wherein the anion exchanger has a particle size of from 1 to 250 μm and a pore diameter of from 100 to 400 nm.

136. (currently amended) The process of claim 125, wherein the aqueous alcoholic solution includes from 1 to 7 M sodium perchlorate, from 1 to 7 M guanidine-HCl, from 1 to 5 M sodium chloride, from 1 to 6 M sodium iodide, ~~and~~ or 1 M sodium chloride in a 20%

alcoholic solution wherein the alcoholic portion of the alcoholic solution is selected from the group consisting of ethanol, propanol, isopropanol, butanol, poly(ethylene glycol), and mixtures thereof.

137. (previously presented) The process of claim 120, wherein the eluant is a buffer solution that comprises water and Tris at a pH value of from 5 to 9.

138. (previously presented) The process of claim 120, whereby the nucleic acids are plasmid or genomic DNA.